APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/633,231	08/04/2000	Osamu Hori	195467US2SRD	1352

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EXAMINER
CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/633,231	HORI ET AL.
	Examiner	Art Unit
	Dave Czekaj	2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-36_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-36_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _04 August 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _4, 6, 7_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by

Anderson et al. (5986675), (hereinafter referred to as "Anderson").

Regarding claims 1, 2, 5, 6, Anderson discloses a process for creating a

3D computer animated movie or animated sequence of images. This invention

allows a user to select an actor "specifying at least one of object regions as a

reference object region "(Anderson: column 6, lines 11-12, wherein the actor is

considered the object) and cause the actor to move along a user-defined path

anywhere in a scene and perform any of a variety of actions, such as walking,

crawling, and changing costumes (Anderson: column 6, lines 18-21). These

actions result in "obtaining a conversion parameter (wherein the conversion

parameter is the changing costumes, walking, or crawling) representing

conversion from the reference object region into an object region of a target

object (wherein the target object is the final location of the actor) and describing

the object region data using the conversion parameter and information on the

reference object region." The user also moves the actor along any arbitrary path

defined by the user thus "approximating a time-series variation of the conversion

parameter and describing the object region data using an approximate function

parameter."

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 3-4 and 7-36 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Anderson et al. (5986675), (hereinafter referred to as "Anderson") in view of Erdem

et al. (5982909), (hereinafter referred to as "Erdem").

Regarding claims 7-10, Anderson discloses a process for creating a 3D

computer animated movie or animated sequence of images. This invention

allows a user to select an actor "specifying at least one of object regions as a

reference object region "(Anderson: column 6, lines 11-12, wherein the actor is

considered the object) and cause the actor to move along a user-defined path

anywhere in a scene and perform any of a variety of actions, such as walking,

crawling, and changing costumes (Anderson: column 6, lines 18-21). These

actions result in "obtaining a conversion parameter (wherein the conversion

parameter is the changing costumes, walking, or crawling) representing

conversion from the reference object region into an object region of a target

object (wherein the target object is the final location of the actor) and describing

the object region data using the conversion parameter and information on the

reference object region." The user also moves the actor along any arbitrary path

defined by the user thus "approximating a time-series variation of the conversion

parameter and describing the object region data using an approximate function

parameter." However, this process lacks the error minimization as claimed.

Erdem teaches that the optimum locations for nodes inside an object are found

using a logarithmic method that reduces the computational load, especially when

sub-pixel accuracy is applied (Erdem: column 12, lines 6-8). Erdem further

discloses a step that minimizes prediction error (Erdem: column 12, lines 31-37,

and figure 13). Therefore it would have been obvious to one having ordinary skill

in the art at the time the invention was made to take the process disclosed by

Anderson and add the error minimization step taught by Erdem in order to obtain

an object-region-data apparatus that keeps errors at a minimum level and

produces an accurate picture.

Regarding claims 3-4, Anderson discloses that after selecting the actor

and scene, the user begins to record a movie that consists of a computer-

animated sequence of images (Anderson: column 11, lines 1-3). Although not

stated, these images could consist of bit-map information (Official Notice)

because they are popular image formats.

Regarding claims 11-14, Anderson discloses a series of frames that make

up a running sequence (Anderson: figure 13). The "reference object region" is

located in the center, with frames preceding and following the "reference object region".

Regarding claims 15-18, note Erdem, figures 2A and 2B. If the threshold was exceeded in item 26a, the "reference object region is updated" via items 30b, 40b, and 50b.

Regarding claims 19-22, note Erdem, figures 2A and 2B. If the threshold was exceeded, the "conversion parameters are recursively obtained" via the arrow between items 28a and 26a.

Regarding claims 23-26, note Anderson, figure 14. The "object region is divided into a plurality of subregions" or cells from which "conversion parameters are obtained".

Regarding claims 27-30 and 33, note Anderson, figure 20. This diagram illustrates or describes "related information related to the object region of said target object".

Regarding claim 31, note Anderson, figure 1. The RAM (item 17) has a plurality of "data regions" (items 37a-37n) for storing a variety of information.

Regarding claims 32 and 34-36, although not shown, a processor could have been configured to set a reference object, obtain a conversion factor, describe the object region data, approximate a time series variation of the conversion parameter, and inversely convert a specified predetermined position into a position in a frame (Official Notice). Doing so would have been obvious to

make the data acquisitions listed above more efficient. Also, see figure 14b of

Erdem, which shows the selection inside for an object.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

US-5883673	03-16-99	Miyamoto, Yoshihiro
US-5966469	10-12-99	Moon et al.
US-6373492	04-16-02	Kroitor, Roman B.
US-6414685	07-02-02	Takakura et al.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dave Czekaj whose telephone number is (703) 305-

3418. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 872 9314

for regular communications and (703) 872 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4700.

Art Unit: 2613

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July 11, 2003

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600